

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : David Wayne Daniels et al Conf. No 8039
Serial No. : 10/606,304 Art Unit: 3733
Filed : June 25, 2003 Examiner: Hoffman, Mary C.
For : NON-LINEAR REAMER FOR BONE PREPARATION AND
ASSOCIATED METHOD

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July 18, 2007

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/Cynthia K. Thompson /

(Signature)

July 18, 2007

(Date of Signature)

Commissioner for Patents
P.O.Box 1450
Alexandria, VA 22313-1450

AMENDMENT

Dear Sir:

In response to the Official Action dated April 18, 2007, please amend the above-identified application as follows:

Amendments to the Specification are reflected on page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims, which begins on page 3 of this paper.

Remarks/Arguments begin on page 8 of this paper.

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph on lines 6-7 of page 1 of the specification with the following paragraph:

Cross reference is made to the following applications: ~~DEP 670~~ U.S. Pat. Appl. No. 10/606,401 entitled "ASSEMBLY TOOL FOR MODULAR JOINTS", and ~~DEP 654~~ U.S. Pat. Appl. No. 10/606,303 entitled "MODULAR TAPERED REAMER FOR BONE PREPARATION AND ASSOCIATED METHOD" filed concurrently herewith which are incorporated herein by reference.

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing Of Claims

We claim:

1. (Currently amended) A reamer for preparing a cavity in the intramedullary canal of a long bone, said reamer comprising:

a first component for preparation of the cavity in the canal, said first component including a portion thereof for placement at least partially in the cavity of the long bone, said first component defining a rotational centerline thereof;

a rigid second component operably connected to said first component, said second component defining a rotational centerline thereof, the rotational centerline of said first component and the rotational centerline of said second component having a first relationship in which the centerlines are coincident and a second relationship in which the centerlines are skewed with respect to each other; and

a securing feature to rigidly attach said first component to said second component in at least one of the first and second relationships.

2. (Original) The reamer of claim 1, further comprising a joint operably connected to said first component and to said second component, said joint adapted to provide the first relationship in which the centerlines are coincident and the second relationship in which the centerlines are skewed with respect to each other.

3. (Original) The reamer of claim 1:
wherein said first component includes a portion thereof having a tapered external periphery; and

wherein said second component includes a portion thereof having a drive connection.

4. (Cancelled)

5. (Previously presented) The reamer of claim 1, wherein said securing feature comprises at least one of a wedge and a pin.

6. (Original) The reamer of claim 1, wherein the long bone is one of a femur and a humerus.

7. (Original) The reamer of claim 2, wherein said first component and said second component are hinged to each other.

8. (Original) The reamer of claim 7:
further comprising a pin; and
wherein said first component and said second component define openings therein for receiving said pin.

9. (Withdrawn) A reamer assembly for preparing a cavity in the intramedullary canal of a long bone, said reamer comprising:

a first reamer including a first portion for preparation of the cavity in the canal, the first portion defining a rotational centerline thereof, and a second portion operably connected to the first portion, the second portion defining a rotational centerline thereof, the rotational centerline of the first portion and the rotational centerline of the second portion having a first relationship in which the centerlines are coincident and a second relationship in which the centerlines are skewed with respect to each other; and

a second reamer slidably fittable over at least a portion of said first reamer.

10. (Withdrawn) The reamer assembly of claim 9, further comprising a joint operably connected to the first portion and to the second portion, said joint adapted to provide the first relationship in which the centerlines are coincident and the second relationship in which the centerlines are skewed with respect to each other.

11. (Withdrawn) The reamer assembly of claim 9:
wherein said first portion includes a section thereof having a tapered external periphery; and
wherein said second portion includes a section thereof having a drive connection.
12. (Withdrawn) The reamer assembly of claim 9, further including a securing feature to rigidly attach the first portion to the second portion.
13. (Withdrawn) The reamer assembly of claim 12, wherein said securing feature comprises one of a wedge and a pin.
14. (Withdrawn) The reamer assembly of claim 9, wherein the long bone is one of a femur and a humerus.
15. (Withdrawn) The reamer assembly of claim 9, wherein said first portion and said second portion are hinged to each other.
16. (Withdrawn) The reamer of claim 15:
further comprising a pin; and
wherein said first portion and said second portion define openings therein for receiving said pin.
17. (Withdrawn) A kit for preparing a cavity in the intramedullary canal of a long bone for use in performing joint arthroplasty, said kit comprising:
a first reamer including a first portion for preparation of the cavity in the canal, the first portion defining a rotational centerline thereof, and a second portion operably connected to the first portion, the second portion defining a rotational centerline thereof, the rotational centerline of the first portion and the rotational centerline of the second portion having a first relationship in which the centerlines are coincident and a second relationship in which the centerlines are skewed with respect to each other; and

a trial for assisting in performing a trial reduction, said trial operably associated with said first reamer.

18. (Withdrawn) The kit of claim 17, further comprising a second reamer slidably fittable over at least a section of the second portion of said first reamer;

19. (Withdrawn) The kit of claim 17, further comprising a joint operably connected to the first portion and to the second portion, said joint adapted to provide the first relationship in which the centerlines are coincident and the second relationship in which the centerlines are skewed with respect to each other.

20. (Withdrawn) The kit of claim 19, further including a securing feature to rigidly attach the first portion to the second portion.

21. (Withdrawn) The kit of claim 20, wherein said securing feature comprises at least one of a wedge and a pin.

22. (Withdrawn) The kit of claim 17, wherein the long bone is one of a femur and a humerus.

23. (Withdrawn) The kit of claim 17, wherein the first portion and the second portion are hinged to each other.

24. (Withdrawn) The kit of claim 23:
further comprising a pin; and
wherein said first component and said second component define openings therein for receiving said pin.

25. (Withdrawn) A method for providing joint arthroplasty comprising:
opening a medullary canal of the long bone;

providing a reamer including a first member having a first member centerline and a second member having a second member centerline, the first member centerline being movable with respect to the second member centerline, the first member including a surface for the removal of bone;

positioning the reamer in the canal;

reaming a cavity in the canal with the reamer with the first member centerline being coincident with the second member centerline; and

adjusting the reamer such that the first member centerline is skewed with respect to the second member centerline.

26. (Withdrawn) The method of claim 25 further comprising the steps of:

providing a trial;

attaching the trial to the second member; and

performing a trial reduction.

27. (Withdrawn) The method of claim 25, further comprising the steps of:

providing a second reamer for cooperation with the second member, the second reamer including a surface for the removal of bone; and

removing bone with the second reamer.

28. (Withdrawn) The method of claim 25, further comprising the steps of:

providing a joint prosthesis; and

implanting the joint prosthesis in the cavity

29. (Withdrawn) The method of claim 26:

wherein the reamer step comprises providing a reamer with the first member having a tapered shaft and with the second member having a tapered shaft fitted to the tapered shaft of the first member; and

wherein the providing the trial step comprises providing a trial having tapered shaft fitted to the tapered shaft of the first member.

REMARKS

The present amendment is being filed under a Certificate of Mailing as indicated. Claims 1-3 and 5-8 are pending. Claim 1 has been amended. Claim 4 has been cancelled. Claims 9-29 have been withdrawn.

Specification

The specification has been amended to include the application number of the two corresponding U.S. applications.

§102

Claims 1-8 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Pat. No. 5,908,423 to Kashuba et al. ("Kashuba"). Independent claim 1 has been amended to state that the securing feature of the reamer secures the first component to the second component in at least first and second relationships. Kashuba is directed to a reaming system that includes a shaft 12 and a first reamer 22 and a second reamer 44. Abstract. The pivot point 29 of Kashuba does not include any sort of locking mechanism that would allow the two reamers 44, 22 to be locked together in a particular position. Instead, during use, the second reamer 44 walks relative to the first reamer 22. In other words, the second reamer 44 does not stay in a single position relative to the first reamer 22; the second reamer 44 pivots all around the joint 29, creating a circular path.

Unlike the reamer of Kashuba, the reamer as recited in claim 1 of the present application includes a securing feature that can lock the first and second components in a particular position. Instead of reaming a circular path, the reamer as recited in claim 1 reams a straight line.

Therefore, for at least this reason, claim 1 and its dependents are believed to be allowable over the prior art.

Conclusion

For the above-described reasons it is respectfully submitted that the rejections to the claims have been overcome and that all remaining claims, namely claims 1-3 and 5-8 are currently in condition for allowance. A Notice of Allowance is respectfully requested.

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